

Sectio III. ACANTHOCHLAMYS, Spach.

Involucrum fructiferum, 2-partitum, segmentis laciniatis, spinosis.

5. CORYLUS FEROX, Wall. Plant. Asiat. Rar. tab. 87. Arborea.
Foliis sæpiùs oblongis, acuminatis. Nuce durissimâ, compressâ,
involucro duplò breviori (*Wall. l. c.*).

Hab. in Nepaliæ montibus.

A tree twenty foot high and two foot in circumference. Branches slender, smooth, brownish. Leaves three to four inches long, pubescent on both surfaces, hairy on the nervures, similar to those of the elm. Fruit aggregated in pendent heads. Involucre hairy. Nut with a very thick shell. (*Wallich, l. c.*)

XLVI.—*The Birds of Ireland.* By WM. THOMPSON, Esq.,
Vice-Pres. Nat. Hist. Society of Belfast.

[Family FRINGILLIDÆ, continued from p. 288.]

THE GREEN GROSBEAK OR GREEN-LINNET, *Fringilla Chlo-
ris*, Temm. (Genus *Coccothraustes*, Briss.), is common and resident in suitable localities throughout Ireland. This bird is generally described simply as found in cultivated districts, but this gives no correct idea of the true haunts of the species or of its partialities. These I have seen set forth with the nice discrimination and fullness which are so desirable, in one work only—the ‘British Birds’ of Sir Wm. Jardine.

This author remarks on the green-linnets “frequenting cultivated districts in *the vicinity of gardens and limited plantations*. During winter they congregate in large flocks, feeding on the stubble ground on various small seeds, and resorting towards night-fall to the vicinity of the *plantations or evergreens surrounding some mansion * * **. In spring, when paired, they resort to the *garden and shrubbery*.” The words in *italics* mark the nice discrimination alluded to, and are in entire accordance with my own observation on the favourite haunts of the green-linnet, and to it alone will they strictly apply. By the plantation of shrubberies, I have known this handsome bird to be attracted to a rather wild district in which it had hitherto been a stranger, and soon become plentiful, the Portugal Laurel with its dense foliage being its favourite resort. This species is usually described as a late-breeding bird; but in the locality just alluded to, and which is at a considerable elevation, a journal-note of April 4th, 1832, mentions busy preparations for nestling going forward in glen, shrubbery, and garden. A nest of this species, found in a beech-hedge, was so tastefully lined as to be considered

worth preserving. Outwardly it was constructed of roots interwoven with mosses, but in the lining of the nest, mixed with black and white hairs, were swans-down and thistle-seed, this last evidently made use of on account of its plumed appendages, all of which remained attached to the seed. It was late in the autumn when this nest was observed, so that the period at which the thistle-seed was obtained is unknown. A correspondent remarks, that he has removed nests containing the young to a considerable distance without their being forsaken by the parent birds. My friend at Cromac supplies a note to the effect that he once took all the eggs, three in number, out of a green-linnet's nest and put in their place a similar number of those of the titlark: the next morning he found that a fourth egg had been laid by the green-linnet, which he afterwards saw several times on the nest, but further, the result is unknown to him.

That green-linnets collect into flocks, and remain so for the winter is well known, and I have so remarked them about Belfast feeding in the highest cultivated fields adjoining the heath of the mountain-top, and again in low-lying tracts somewhat distant from any plantation or place where they would roost for the night. In summer likewise they are occasionally congregated. Two excellent observers have noticed them as follows—one, in the vicinity of the town just mentioned, remarked a flock of not less than thirty, feeding on a mountain pasture on the 27th of June; and the other saw them come in numbers at the same season to meadows at the sea-side when ready for cutting, and he conjectured, for the purpose of feeding on the seed of the dandelion (*Leontodon Taraxacum*), which plant was there very abundant—both localities were near to tilled ground and plantations of trees and shrubs.

A correspondent mentions, that by placing one of these birds in a cage-trap he has caught numbers. I have known some, when taken young and caged, and after being so kept for some little time, to be given their liberty every morning, when they returned to their cage in the evening to roost as regularly as in a perfectly wild state they would have done to their favourite tree or shrub.

The only food which I have found in the stomachs of a number of these birds killed during winter was grain and seeds of different kinds.

THE GOLDFINCH, *Fringilla Carduelis*, Linn., though found over the four provinces of Ireland, is by no means generally distributed, and in some extensive districts which seem in every respect most favourably circumstanced for it, is not

to be found at all, or only as an occasional visitant. Of all our indigenous birds, the beautiful goldfinch seems the most capricious. In one instance it is known to me as entirely deserting a part of the country which it had regularly frequented, after a small portion of a mountain-side covered with thistles from time immemorial had been reclaimed and planted with forest trees. From other localities too, I have known the goldfinch without any apparent reason flit away, and, unlike many other birds, never revisit the place of its nativity. As the country around Belfast has become more populous, their number has decreased. The romantic neighbourhood of Cushendall, about forty miles distant, is now their stronghold in this quarter, and there the goldfinch is the most common bird. It is pleasing to witness the social manner in which they feed, several being often engaged regaling upon the seed of a single thistle; and on a moderate-sized plant of the more humble knapweed (*Centaurea nigra*) I have seen four of them thus occupied at the same time—the seed of the ragwort or ragweed (as it is called in the north of Ireland) is a favourite food. They are very easily alarmed when feeding, and fly off hurriedly in little companies uttering their pleasing and lively call.

Although this species will frequent gardens and well-kept grounds, especially for the purpose of nestling, it seems to prefer such parts of the country as are in some degree wild, and its visits to the farm are certainly not to be considered as complimentary to the owner, for when most out of order and run to weeds it is most attractive to the goldfinch. During snow, these birds have been taken in trap-cages baited with flax-seed, and sometimes in company with chaffinches. For two years successively, goldfinches nested in a cherry-tree within ten paces of a house in which I lived, when they and their young (in each instance four in number) proved most interesting—I have seen their nests in willows and pear-trees, and in one of the latter of moderate size, the goldfinch and thrush at the same reared their broods, both of which in due time escaped in safety. One correspondent mentions his having had their nests in the elder, and another, in noticing apple-trees in which he had observed them, remarks that they were generally placed on the outer portion of the branches.

In addition to seeds of various kinds found in the stomachs of examples killed in the months of January and February, I have observed the remains of coleopterous insects, but only very rarely. The goldfinch is treated of in a very interesting manner in the 'Journal of a Naturalist.'

SISKIN, *Fringilla spinus*, Linn.—Templeton, in his 'Cata-

logue of the Vertebrate Animals of Ireland,' calls this bird a "rare visitant," and to my ornithological friends and myself it is known only as a winter bird of passage resorting at uncertain intervals to this island. Rutton, in his 'Natural History of Dublin' (1772), says, that siskins "come to us in the beginning of winter and go away the beginning of spring," implying their regular periodical appearance. That they may occasionally even breed in some parts of the county of Wicklow, and certain suitable localities in the north, is not improbable.

I first saw this species in a wild state in the neighbourhood of Belfast, in the winter of 1826 or 1827, probably the latter, as in that year siskins were met with (and for the first time) by Sir Wm. Jardine in Dumfries-shire. On November 22, 1828, my brother shot one near Belfast when feeding on a thistle, and in March 1829, he saw about eight of these birds in our Botanic Garden very busily engaged in feeding among the branches of some larch-firs then partially in leaf. Early in the winter of 1835 many—both old and young—taken alive about the town of Antrim, were brought to Belfast for sale, and an example was shown to me which had been killed with a stone out of a flock consisting of from twenty to thirty individuals near Ballymena in the same county. On the Christmas-day of that year, an intelligent observer saw about twenty feeding together on thistles in the county of Down: on the 25th of February 1836, I met with a couple, one of which was an adult male, on the wooded banks of the river Lagan near Belfast, where the alder predominates, and so late as the 6th of April, saw one which had been then obtained in the last-named county;—during the winter of 1835–36 these birds were unusually plentiful from the north of the island to the neighbourhood of Dublin, where, and in the adjacent county of Wicklow, large flocks were seen and numbers killed: examples were likewise procured that season in the county of Cavan. Early in the winter of 1836–37 some of these birds were shot in the counties of Dublin and Wicklow, and again in the winter of 1829–30. A friend who has numbered nearly eighty years and knows the siskin well, recollects its visiting the north of Ireland occasionally throughout his life, and its frequenting in some numbers a large garden attached to a store in the town of Belfast to feed on flax-seed, of which some was always strewn over one of the walks. The same gentleman saw several of these birds about Ballantrae in Ayrshire, a few days before Christmas 1839.

Of those before mentioned as brought alive to Belfast, some were purchased by my friend Wm. Sinclair, Esq., who thus

reports upon them: "The siskin is a very pleasing cage-bird; it is extremely lively and active in all its movements; its song, though not a highly finished performance, is very varied and continuous, yet not too loud for a room. When several are in one cage they all sing together in a most rambling and discursive manner."

THE LESSER REDPOLE, *Fringilla Linaria*, Linn., is found from north to south of Ireland. Late in May or early in June, it has been seen by Mr. R. Ball on the banks of the river Blackwater in the county of Waterford, where he presumes that it nestles; and Mr. R. Davis, jun., of Clonmel, informs me that it breeds in his neighbourhood;—in the north of England only is it said to do so. Although resident over the island, it is more plentiful in the north, but from the nature of its haunts is not very commonly known like the grey-linnet. Here in summer it chiefly frequents the picturesque and wooded glens, building commonly in the *Coniferae*; but in a friend's garden contiguous to such a locality, an humble gooseberry-bush once sufficed for this purpose, and the nest is stated to have been lined with feathers. A person conversant with the species reports his having had its nest in a thorn-tree, that the eggs were very small and of a blue colour, with the markings described by Selby. In winter the lesser redpole is dispersed very generally, and often in rather small flocks, about twenty in number, over plantations from the highest on the mountain-side to those which are but little elevated above high-water mark. The late John Montgomery, Esq., of Locust Lodge, near Belfast, informed me that he had remarked this bird in winter engaged in feeding upon the seeds of the tree-primrose (*Oenothera*) and crown-imperial (*Fritillaria imperialis*) in his garden.

It were idle to dwell longer on this interesting bird—its partiality to the seed of the alder; the varied and graceful attitudes all so full of animation and life assumed by a group when feeding; and the indifference shown to the close proximity of man at such times; for these points have been fully expatiated on by Mr. Selby.

THE COMMON OR GREY-LINNET, *Fringilla cannabina*, Linn., is one of the most common birds throughout Ireland at every season. In nearly all kinds of localities, except the lofty mountain-ridge, it is to be met with. This species, keeping generally by itself or associating with the other linnets (*Linariæ*) (though I have seen many in company with chaffinches), is partial to neglected pastures or other grounds where "weeds" are permitted to flourish, and where it renders the farmer a great service by feeding on their seeds. The

cultivator of flax in the north of Ireland, by placing no value on the home-grown seed, unwittingly presents a rich autumnal treat to the grey-linnet. After this plant has been subjected to steeping, the seed parts freely from the stem when the bundles are flung out of the pool upon the neighbouring banks, and here these birds may be seen congregated to feed upon it so long as any seed is left. The linnet has always seemed to me to have a predilection for deserted quarries (especially of limestone), doubtless for the sake of the seeds of the various plants which spring from the debris—and also for the borders of the sea-shore unaffected by cultivation, where many hundreds may often be seen associated together. So early as the 10th of July I once saw several flocks, some containing fifty individuals, on the marine sand-hills at Portrush, near the Giant's Causeway: one of these birds which fed within six paces of me was regaling on the seed of a dandelion, which it extracted with great rapidity; on rising from the ground its call was uttered and repeated for some time on the wing*. Under date of September 21, the following note appears in my journal:—For some time past I have daily seen flocks of from two to three hundred grey-linnets about the rocks at the sea-side near Bangor, county of Down. When perched today (which was very fine) on low rocks whose bases were washed by the sea, they kept up a pleasing concert, reminding me of that produced by an assembled multitude of redwings (*Turdus Iliacus*) on fine days in the early spring.—On the shore of Belfast bay I have seen this bird at the end of April perched on the top of fucus-covered stones—the legitimate haunt of the rock pipit—singing most vigorously, though whin-covered rocks, a favourite resort of the species, were quite contiguous. When in the month of June visiting low rocky islets in the sea, the breeding-haunts of terns (*Sternæ*), I have met with this bird. Occasionally in autumn as well as spring, the true song of the linnet may be heard trilled forth by individuals which form part of a large flock. On the 1st of September I have remarked the red upon the breast to be as bright as in June. To witness a flock of grey-linnets feeding is a very pleasing and interesting sight. Several may be seen in different attitudes busied in extracting the seed from a single thistle or ragweed, which all the while keeps moving to and fro with their weight. The ear too is at the same time gratified with the lively call, which is constantly uttered by one or more of the party. When two

* In this respect the *lesser redpole* is said by Mr. Selby to differ from the grey-linnet, which he considers to be silent on the wing, but in the north of Ireland there is not this distinction between the species.

or three are engaged on the petty surface of a ragweed-top, and others fly to it, some of the first comers, apparently on the principle that the world is wide enough for all, generally move off and leave it to the later guests; occasionally, indeed, the interruption produces a little buffeting, but which soon terminates, and in this respect is unlike the general *mêlée* of the sparrow, where the row, originating with a pair, soon becomes general; or the regular "stand-up fight" of the robin, a couple of which, when feeling "blown" after a set-to, literally stop to take breath, after the approved manner of the Fives-Court, and this done, are at it again as hard as ever, until the victory is decided.

Sir Wm. Jardine has very pleasingly remarked in a note to his edition of Wilson's 'American Ornithology,' that "every one who has lived much in the country must have often remarked the common linnets congregating towards the close of a fine winter's evening perched on the summit of some bare tree, pluming themselves in the last rays of the sun, chirruping the commencement of their evening song, and then bursting simultaneously into one general chorus, again resuming their single strains, and again joining, as if happy, and rejoicing at the termination of their day's employment." In one locality where I had daily the gratification of thus observing them, the effect was heightened by the trees—black Italian poplars, stunted from growing in a retentive clay—on which they alighted and dotted with their numbers to the very apex, having pyramidal-formed heads, and accordingly presenting several pyramids of birds, each giving forth its peal of music. When this ceased, the birds descended to roost in fine large Portugal laurels growing beneath and around the trees. The time, &c. of their resorting to these poplars was noted on a few occasions during one season, thus—on February 16th, a great number appeared at four o'clock; on the 9th of March, kept up their strain until half-past five o'clock; March 30th, did the same until half-past six o'clock, and though their numbers have become much thinned, 120 were reckoned on this occasion. So late as the 5th of May some came in flocks to roost; this evening fifteen were observed in company. The whin is the grey-linnet's favourite plant for nestling in, and next to it the hawthorn may be ranked, whether in a hedge or growing singly. This is a favourite cage-bird in the north of Ireland, where it is consequently much sought after by bird-catchers, who call it simply *grey*.

THE MOUNTAIN-LINNET, *Fringilla montium*, Gmel., is one of the least known of our indigenous *Fringillidæ*, and was believed by Mr. Templeton to be only a "winter visitant." But

it nestles in the heath-clad mountains of at least the more northern parts of the island*, and from its occurrence to me in such localities in mid-winter, I am disposed to believe that severity of weather only drives it from such haunts. It is distinguished in the north of Ireland from the other linnets (*Linnaria*) by the name of "*Heather-grey*." A friend frequently before alluded to, remarks that he has seen these birds every winter for some years past in large flocks about Clough, in the county of Antrim, where they chiefly frequent the stubble-fields in the neighbourhood of the mountains. A person conversant with this species states, that he has frequently had its nests among heath on the top of the Knockagh, a mountain near Carrickfergus: in this plant they were generally placed, but in some instances were built in dwarfed whins which grew amid the heath. A venerable sporting friend has always met with these birds about their nests (which he remarks were placed in "tufts of heather") when breaking his dogs on the Belfast mountains preparatory to grouse-shooting. From the county of Fermanagh I have had specimens of this bird. Mr. R. Ball includes it among the species found in the neighbourhood of Dublin.

[To be continued.]

XLVII.—*Extracts from a Lecture by M. DUMAS on the Chemical Statics of Organized Beings* †.

IF, in the dark, plants act as simple filters which water and gases pass through; if, under the influence of solar light they act as reducing apparatus which decompose water, carbonic acid and oxide of ammonium, there are certain epochs and certain organs in which the plant assumes another, and altogether opposite part.

Thus, if an embryo is to be made to germinate, a bud to be unfolded, a flower to be fecundated, the plant which absorbed the solar heat, which decomposed carbonic acid and water, all at once changes its course. It burns carbon and hydrogen; it produces heat, that is to say, it takes to itself the principal characters of animal life.

But here a remarkable circumstance reveals itself. If barley or wheat is made to germinate, much heat, carbonic acid and water are produced. The starch of these grains first changes into gum, then into sugar, then it disappears in producing carbonic acid, which the germ is to assimilate. Does a potato

* Since the above was written, Mr. R. Davis, jun., of Clonmel, has informed me that it is common and breeds in the county of Tipperary.

† The lecture from which these are extracts has appeared in the *Philosophical Magazine* for November and December 1841.